



# Freight Transportation Profile—Rhode Island

## Freight Analysis Framework

Understanding future freight activity is important for matching infrastructure supply to demand and for assessing potential investment and operational strategies. To help decisionmakers identify areas in need of capacity improvements, the U.S. Department of Transportation developed the Freight Analysis Framework (FAF), a comprehensive national data and analysis tool, including county-to-county freight flows for the truck, rail, water, and air modes. FAF also forecasts freight activity in 2010 and 2020 for each of these modes. Information about the methodology used in developing FAF is available on the Office of Freight Management and Operations’ website [www.ops.fhwa.dot.gov/freight](http://www.ops.fhwa.dot.gov/freight).

The U.S. freight transportation network moves a staggering volume of goods each year. Over 15 billion tons of goods, worth over \$9 trillion, were moved in 1998. The movement of bulk goods, such as grains, coal, and ores, still comprises a large share of the tonnage moved on the U.S. freight network. However, lighter and more valuable goods, such as computers and office equipment, now make up an increasing proportion of what is moved. FAF estimates that trucks carried about 71 percent of the total tonnage and 80 percent of the total value of U.S. shipments in 1998. By 2020, the U.S. transportation system is expected to handle about 23 billion tons of cargo valued at nearly \$30 trillion.

### Rhode Island

Table 1 presents information on freight shipments that have either an origin or a destination in Rhode Island. As shown in the table, trucks moved a large percentage of the tonnage and value of shipments. Figures 1 and 2 show freight flows on the highway and rail modes.

Truck traffic is expected to grow throughout the state over the next 20 years. Much of the growth will occur in urban areas and on the Interstate highway system (Figures 3 and 4). Truck traffic moving to and from Rhode Island accounted for 4 percent of the average annual daily truck traffic (AADTT) on the FAF road network. Approximately 1 percent of truck traffic involved in-state shipments, and 4 percent involved trucks traveling across the state to other markets. About 91 percent of the AADTT were not identified with a route-specific origin or destination.

Table 2 shows the top five commodity groups shipped to, from, and within Rhode Island by all modes. The top commodities by weight are petroleum or coal products and secondary traffic. By value, the top commodities are secondary traffic and petroleum or coal products. Secondary traffic is defined as freight flows to and from distribution centers or through intermodal facilities. No commodities are assigned to this intermediate step in the transportation process.

Table 1. Freight Shipments To, From, and Within Rhode Island: 1998, 2010, and 2020

RHODE ISLAND	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	29	41	50	21	38	61
By Mode						
Air	<1	<1	<1	1	3	5
Highway	20	28	36	18	33	52
Other <sup>a</sup>	2	3	5	<1	<1	2
Rail	<1	1	1	<1	<1	<1
Water	5	8	9	<1	2	3
By Destination/Market						
Domestic	24	33	41	18	34	53
International	5	7	10	2	5	8

Note: Modal numbers may not add to totals due to rounding.

<sup>a</sup> The “Other” category includes international shipments that moved via pipeline or by an unspecified mode.

**Figure 1. Freight Flows To, From, and Within Rhode Island by Truck: 1998 (tons)**



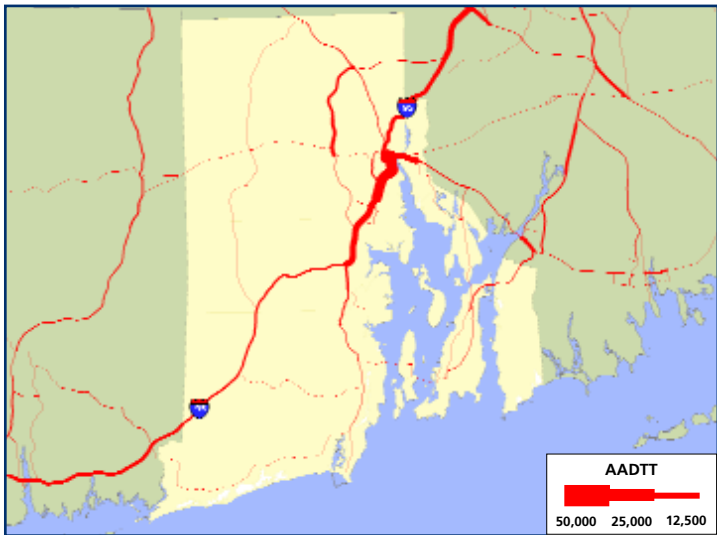
Federal Highway Administration

**Figure 2. Freight Flows To, From, and Within Rhode Island by Rail: 1998 (tons)**



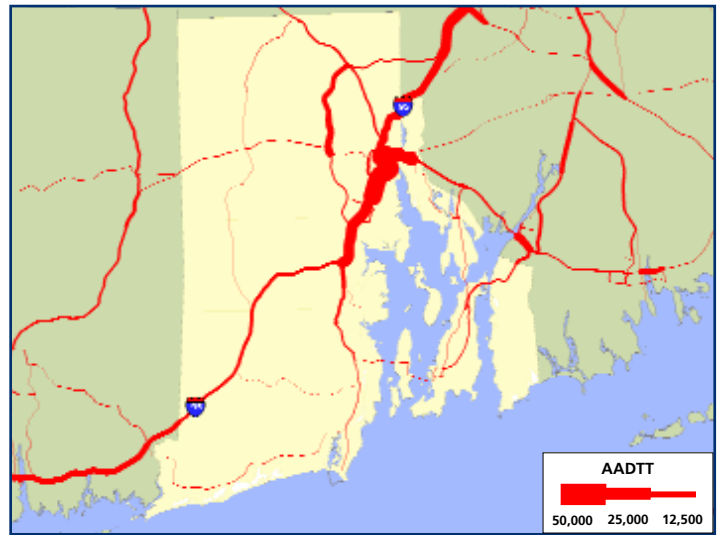
Federal Railroad Administration

**Figure 3. Estimated Average Annual Daily Truck Traffic: 1998**



Federal Highway Administration

**Figure 4. Estimated Average Annual Daily Truck Traffic: 2020**



Federal Highway Administration

**Table 2. Top Five Commodities Shipped To, From, and Within Rhode Island by All Modes: 1998 and 2020**

Commodity	Tons (millions)		Commodity	Value (billions \$)	
	1998	2020		1998	2020
Petroleum/Coal Products	13	21	Secondary Traffic	4	14
Secondary Traffic	4	9	Petroleum/Coal Products	2	9
Farm Products	2	2	Chemicals/Allied Products	2	4
Waste/Scrap Materials	2	2	Textile Mill Products	1	2
Clay/Concrete/Glass/Stone	1	3	Transportation Equipment	1	3

#### For More Information, Please Contact

Bruce Lambert  
Office of Freight Management and Operations  
Federal Highway Administration  
202-366-4241  
bruce.lambert@fhwa.dot.gov

November 2002  
FHWA-OP-03-064  
EDL 13752

A series of FAF products are available on the website noted below. FAF outputs include freight flow maps for states, modes, and gateways; detailed databases on traffic flows and commodity movements; information on the methodologies used to develop FAF; and forecast assumptions.

The U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) is also developing a series of state transportation profiles. For more information and to obtain a copy of the BTS reports, please call 202-366-DATA.



U.S. Department  
of Transportation

**Federal Highway  
Administration**